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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

5 AGDA (M) (5 Feb 70) FOR OT UT 694251

10 February 1970

3 SUBJECT: Operational Report - Lessons Learned, Headquarters, 45th Engineer
2 Group, Period Ending 31 October 1969

5
6
8 SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation in accordance with paragraph 4b, AR 525-15. Evaluations and corrective actions should be reported to ACSFOR OT UT, Operational Reports Branch, within 90 days of receipt of covering letter.

2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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as

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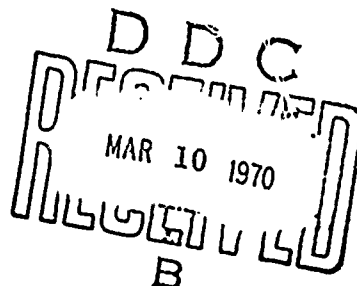
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ASSISTANT CHIEF OF STAFF FOR FORCE DEVELOPMENT
(ARMY) ATTN FOR OT UT. WASHINGTON, D.C. 20310

DEPARTMENT OF THE ARMY
HEADQUARTERS 45TH ENGINEER GROUP (CONSTRUCTION)
APO 96308

EGD-3

31 October 1969

SUBJECT: Operational Report of the 45th Engineer Group (Construction)
for Period Ending 31 October 1969, RCS CSFOR-65 (RI)

THRU: Commanding General
18th Engineer Brigade
ATTN: AVBC-CS
APO 96377

Commanding General
United States Army, Vietnam
ATTN: AVHGC-DST
APO 96375

Commander in Chief
United States Army, Pacific
APO 96558

TO: Assistant Chief of Staff for Force Development
Department of the Army (ACSFOR-DA)
Washington, D. C. 20310

Section 1. Operations: Significant Activities

1. The 45th Engineer Group (Construction) is located in the I Corps Tactical Zone, the Republic of Vietnam. During this reporting period the group headquarters remained at Phu Bai. The battalions and separate companies of the 45th Engineer Group (Construction) are located in the general vicinity of Quang Tri, Hue-Phu Bai, and Chu Lai, RVN. Inclosure 1 is a schematic diagram depicting the organizational structure of the 45th Engineer Group (Construction) at the end of the reporting period. Inclosure 2 is a listing of units and commanders comprising the 45th Engineer Group (Construction).

2. The mission of the 45th Engineer Group (Construction) is to provide non-divisional engineer support throughout I Corps Tactical Zone in general support of III Marine Amphibious Force. Specific tasks undertaken in accomplishing the mission were minesweeps, combat engineer construction in support of tactical operations, LOC construction and cantonment construction for U.S. Forces in Northern I Corps.

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694251

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3. The following is a list by unit of the significant accomplishments of the 45th Engineer Group for this reporting period:

a. 14th Engineer Battalion (Combat)

(1) 5260 LF of revetments were erected in the Phu Bai area for protection of helicopters and billets.

(2) 54,800 SF of M841 matting was emplaced for helipad/taxiway construction and erosion damage repair in Phu Bai.

(3) Extensive combat support construction at Camp Carroll, FSB A-1, FSB A-2, FSB C-1, and FSB C-2 produced the construction of 49 living bunkers, 5 fighting bunkers, 3 each propellant and powder bunkers, 2 FDC bunkers and 6 heavy gunpads.

(4) 7 km of Rte 555A were upgraded by installing 300 LF of culvert, hauling 3500 CY of fill, constructing a 20 ft, single lane, class 50 bridge and graded and compacted roadway.

(5) 8 km of Rte 547A were upgraded. This was a joint US - ARVN project and proved that the ARVN engineer elements are both qualified and capable.

(6) A new 4 span, class 50 timber trestle bridge was constructed on Rte 550.

b. 27th Engineer Battalion (Combat)

(1) Operation Horace Greeley terminated on 29 Sep. Significant accomplishments were:

- (a) Road pioneered to FSB Rendezvous - 72 km in length
- (b) Construction of FSB Blaze.
- (c) Tank trail cut to A Shau Valley.
- (d) Construction of FSB Rendezvous.
- (e) Produced 75,819 CYS of crushed rock.
- (f) Cut/fill - 1,554,371 CYS.

(2) On 19 October construction began on an 8 km road in the Phu Thu District Area. 35,120 Cubic meters of fill has been hauled and placed and 13,600 linear meters of roads graded and shaped. A land clearing project in conjunction with the construction has resulted in 1500 acres being cleared.

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c. 39th Engineer Battalion (Combat)

(1) All base-course work was completed on QL-1 from Quang Ngai (BS642745) to Duc Pho (BS806375).

(2) The completed portions of QL-1 from ICTZ/II CTZ Border to Duc Pho (30 km) and from Quang Ngai to Mo Duc (24 km) were turned over to the Ministry of Public Works on 14 Oct and 25 Sep respectively.

(3) Construction of a 50 foot , class 60, timber pile bridge (BS771461).

(4) Construction of a 14,000 sq rotary wing parking apron at Duc Pho was completed on 19 September.

4. Major civic action projects undertaken by units of the Group were:

a. The construction of an irrigation canal system in the vicinity of LZ Goldie.

b. The orphanage at Quang Ngai (BS645728) started last quarter was completed.

c. Construction has been taken over from MCF 62 of a children's hospital in Quang Tri consisting of 6 buildings (25,626 SF).

5. ARVN engineer units worked with 45th G. units on the following projects:

a. Upgrading of HL560.

b. Upgrading of HL 547A.

c. Construction of Camp Carroll

d. Construction of Dual Blade Bunkers at FOB A-2 and C-1.

e. Pioneer road to FOB T-Bone.

f. Phu Thu - Thuy Th Road

6. Voluntary Incentive Program (VIP) activities continued. The 39th Engineer Battalion (Combat) was the forerunner in the program. A total of \$VN 95,300 was spent in return for 74 rounds of ammunition, 40mm and larger, 8 rockets, 74 grenades and other miscellaneous items.

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7. Under the MEDCAP program 645 patients were treated.

8. We then generally favored construction in the 45th Engr Gp area during August. Adverse conditions inhibited construction efforts during September and October.

TABLE I: RAINFALL DATA (INCHES)

	<u>Chu Loi</u>	<u>Quang Tri</u>	<u>Phu Bai</u>
Aug Total	0.05	0.71	0.11
24 hr high	0.01	0.18	0.05
Sep Total	21.60	24.40	24.20
24 hr high	2.90	7.17	6.32
Oct Total	51.40	25.90	75.06*
24 hr high	8.00	10.23	21.65*

* Record rainfall for Vietnam

9. Enemy activity in the I Corps Tactical Zone affecting units of the 45th Engineer Group (Construction) decreased in August, September and October. Table II lists enemy initiated incidents.

TABLE II: ENEMY INITIATED INCIDENTS

	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>
Mines/Booby Traps Found	27	11	17
Mines/Booby Traps Detonated	10	3	38
Mortar/Rocket Attacks	9	10	11
Sniper Fire/Ambushes	14	17	3
Bridges Damaged/Destroyed	3	0	0
Culverts Damaged/Destroyed	5	0	1
Other	38	12	11
TOTAL	113	57	82

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10. The following significant enemy initiated incidents occurred:

a. B Company, 39th Engr Bn (C) on 12 August received 50-75 rounds of mortar, RPG and SAF, followed by a three prong ground attack by estimated company size enemy force. Results were 18 NVA/VC KIA, 2 captured AK-47's, 200-300 ChiCom grenades, 1 RPG launcher, 9 RPG rounds, and 10 Bangalore torpedoes. Company B suffered 2 US WIA (M) (BS628854).

b. C Company, 39th Engr Bn (C) on 12 August while on minesweep was ambushed from both sides of the road receiving heavy A/W and 8-10 rounds of RPG. One wounded VC was captured. One US was KIA (C/39), 10 US WIA (3M), 1 ea 5 ton and 1 ea 1/2 ton trucks destroyed. (BS758489)

c. On 19 August the 73d Engineer Co (CS) paving team received 4 RPG and numerous M-79 rounds, and 800-1000 rounds of A/W fire. 1 US KIA and 1 US WIA. The paving machine was a total loss (BS889279).

d. On 23 August 1st platoon, D Company, 19th EBC received heavy SAF from ambush. A reaction force comprised of C Company and 3 dusters while moving to assist the platoon was ambushed also receiving 4-5 rounds of 60mm mortar, 200 rounds of SAF, and 20-25 rounds of RPG fire. Contact broke at 1630. The reaction force while returning to its base camp received 4 rounds of 60mm mortar. 15 NVA were KIA, 1 RPG launcher, 1 AK 47, 1 AK 50 and 1 M-16 captured. US casualties were 1 US KIA (HHC/19), 8 US WIA (2-HHC/45, 1-C/19, 5-D/19), 1-2 1/2 ton (scils lab) truck destroyed, and 2 (infantry) dusters destroyed (BS823340).

e. On 22 October 1st platoon, C Company, 14th EBC while returning from its work site was ambushed by an USEF with SAF and RPG. US casualties were 2 US KIA (C/14) and 1 duster destroyed (YD356355).

11. 45th Engineer Group personnel casualties during the reporting period are summarized in Table III.

TABLE III: CASUALTY SUMMARY

	<u>14th</u>	<u>27th</u>	<u>39th</u>	<u>HHC</u>	<u>59LC</u>
KHA	2	0	1	0	4
Non-battle deaths	1	1	2	0	0
WHA	8	1	25	2	3
Non-battle wounds	2	17	8	0	0

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12. The 45th Engineer Group (Construction) authorized personnel strength was recently cut by 294 spaces to 3056. Present strength is 97 percent of the readjusted strength. Shortages in specific areas continue to be critical within the following MOS's listed below as of 1 Nov 69.

<u>MOS</u>	<u>MOS Title</u>	<u>Auth</u>	<u>Assg</u>	<u>%</u>
05820	Radio Operator	35	21	60
12840	Cbt Engr Squad Ldr	226	152	70
51850	Const Foreman	2	1	50
62D20	Asphalt Mqpt Operator	12	7	58
62G30	Quarry Man	16	8	50
62G40	Quarry Man Supervisor	8	4	50
62N50	Const Mach Supervisor	4	2	50
67N2F	UH-1 Helo Repairman	1	0	0
71T20	Maint Data Specialist	19	9	47
75Y40	Supply Sgt	22	13	59
82A10	Rodman & Tapeman	6	2	33

TABLE IV: AWARDS PRESENTED

	<u>14th</u>	<u>27th</u>	<u>39th</u>	<u>MHC</u>
Silver Star	0	0	3	0
Legion of Merit	1	0	0	0
Distinguished Flying Cross	0	0	0	0
Soldier's Medal	0	0	0	0
Bronze Star (V-device)	1	2	11	0
Bronze Star	16	18	10	16
Air Medal (V-device)	0	0	0	0
Air Medal	0	0	2	15
Army Commendation Medal (V-device)	0	2	13	0
Army Commendation Medal	30	35	53	23

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TABLE V: DISCIPLINARY ACTIONS

	<u>14th</u>	<u>27th</u>	<u>39th</u>	<u>BHC</u>
Special Court Martial	0	7	11	0
Article 15	56	72	51	3

Section 2 - Lessons Learned: Commander's Observations, Evaluations, and Recommendations.

1. Personnel: None.

2. Operations:

a. Culvert Placement by Aircraft (Hook)

(1) Observation: In the construction of a pioneer road, rapid placing of culvert is essential in maintaining construction progress. On many occasions culvert placement is required ahead of completed roadway making transportation of materials difficult.

(2) Evaluation: Culvert materials may be pre-assembled and airlifted to the job site.

(3) Recommendations: Large culverts (48", 60", and 72") may be pre-assembled and strutted at the rear work site and hooked to the work site by CH47. Early morning scheduling of aircraft eliminated hover problems pilots experienced during the hotter portion of the day.

b. Protection of Bridge Abutments

(1) Observation: Bridge abutments washing out during heavy rains.

(2) Evaluation: If a by-pass is constructed upstream from the bridge with insufficient culvert to allow passage of increased stream flow caused by heavy rains, the by-pass tends to act as a diversion wall and the stream flow is diverted to the lowest or weakest point in the by-pass. In one case the lowest point corresponded with one of the bridge abutments and the flow was diverted against the abutments.

(3) Recommendation: Design by-pass structures to accommodate anticipated flood flows or insure that the elevation of the center of the by-pass is low enough so that increased flood flow will not be diverted against abutments.

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c. Mine Probes:

(1) Observation: Constant bending and stooping while probing leads to fatigue on long minesweeps.

(2) Evaluation: Mine probes should be made of a light, hard material such as fire hardened bamboo with sufficient length to eliminate the tire-some stooping and bending at each possible site. Probes of this type have been in use for a considerable amount of time with excellent results.

(3) Recommendation: A lighter, stronger, and longer probe be made available for mine probe teams.

3. Training: None

4. Intelligence: None

5. Logistics:

a. Observation: During the monsoon season rapid build-up of mud on the power train and chassis components has been associated with leaking oil and greasy soils.

b. Evaluation: The accumulation of mud on the under carriage clogs breather vents and forms an insulation shield around gear cases. The actions causes the locking of seals.

c. Recommendation: Operators should pay special attention to washing and chipping away of mud from the under carriage to allow heat to dissipate from gear cases and insure oil on breather vents.

6. Organization: None.

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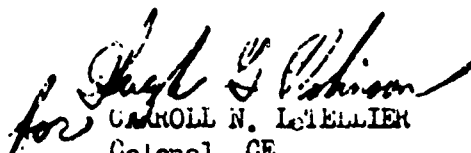
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for 
CARROLL N. LEBELLIER
Colonel, CE
Commanding

AVBC-CG (31 October 1969) 1st Ind
SUBJECT: Operational Report of the 45th Engineer Group (Construction)
for the Period Ending 31 October 1969, RCS CSFOR-65 (R2)

DA, HEADQUARTERS, 18TH ENGINEER BRIGADE, APO 96377 15 DEC 1969

TO: Commanding General, U.S. Army Vietnam, ATTN: AVHGC-DST, APO 96375

1. The Operational Report - Lessons Learned for the 45th Engineer Group (Construction) has been reviewed by this Headquarters and is considered to be an excellent account of the Group's activities during the reporting period.

2. This Headquarters concurs with the observations and recommendations of the Group Commander.



J. W. MORRIS
Brigadier General, USA
Commanding

CF:
2 - AC of S for Force Development, DA
1 - CO, 45th Engr Gp

AVHGC-DST (31 Oct 69) 2d Ind

SUBJECT: Operational Report of the 45th Engineer Group (Construction)

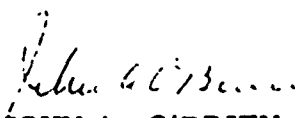
HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO SF 96375

31 DEC 1969

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT,
APO 96558

This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 October 1969 from Headquarters, 45th Engineer Group (Construction) and concurs with the report as indorsed.

FOR THE COMMANDER:


JOHN A. O'BRIEN
Colonel, AGC
Adjutant General

Cy Furn:
45th Engr Gp
18th Engr Bde

GPOP-DT (31 Oct 69) 3d Ind

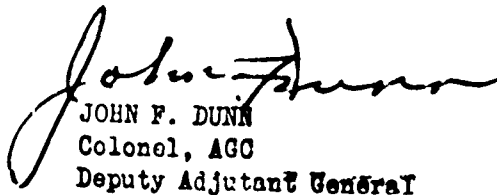
SUBJECT: Operational Report of HQ, 45th Engineer Group (Construction)
for Period Ending 31 October 1969, RCS CSFOR-65 (RI)

HQ, US Army, Pacific, APO San Francisco 96558 16 JAN 70

TO: Assistant Chief of Staff for Force Development, Department of the
Army, Washington, D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:


JOHN F. DUNN
Colonel, AGC
Deputy Adjutant General

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31 October 1969

SUBJECT: Operational Report of the 45th Engineer Group (Construction)
for Period Ending 31 October 1969, MCS CSFOR-65 (RI)

UNIT COMMANDERS

45th Engineer Group (Construction)

Commanding Officer - COL Carroll N. LeTollier 1 Aug to 31 Oct

14th Engineer Battalion (Combat)

Commanding Officer - LTC Drake Wilson, 4 Aug to 31 Oct

LTC Ted E. Bishop, 1 Aug to 4 Aug

27th Engineer Battalion (Combat)

Commanding Officer - LTC Stuart Wood, Jr., 1 Aug to 31 Oct

39th Engineer Battalion (Combat)

Commanding Officer - LTC Thomas A. Ghormley, 1 Aug to 31 Oct

511th Engineer Company (Flood Bridge)

Commanding Officer - CPT Robert J. Reilly

591st Engineer Company (Light Equipment)

Commanding Officer - CPT Maximilian Toek

630th Engineer Company (Light Equipment)

Commanding Officer - CPT David R. Brown

59th Engineer Company (Land Clearing)

Commanding Officer - CPT Lionel Roach

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CO, 45th Engineer Group			
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